

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

1423.9
F767

41453
44



No. 15

May 15, 1957

Initial infestations of the southern pine beetle have been discovered in east Texas and Louisiana. This is the first time since 1951 that the insect has been found in stands in Texas and the first time in many years that it has been reported in Louisiana. Since the first of the year, small new outbreaks have been frequent on the Alabama National Forests, requiring constant vigilance and rapid control measures by ranger personnel. In former epidemic areas in Mississippi, infestations are apparently static and restricted to single trees or small groups. There have been no indications of southern pine beetle activity in Oklahoma, Arkansas, or west Florida.

Favored by an unusually mild winter and, until recent weeks, continued drought, Ips engraver beetles have resumed activity, especially in east Texas and Louisiana. Concentrations are heaviest in areas where loggers left untreated slash in which the beetles could pass the winter.

Numerous small outbreaks of the black turpentine beetle continue to follow logging operations on low, normally wet sites throughout most of the South. In east Texas the beetle has been reported killing scattered trees in stands not subjected to cutting.

SOUTHERN PINE BEETLE RETURNS TO EAST TEXAS

The last major outbreak of the southern pine beetle in east Texas terminated in 1951. Since that time, State and industrial foresters and Southern Forest Experiment Station entomologists have constantly watched for its recurrence.

During the summer of 1956, occasional logs harboring the southern pine beetle were found on one skidway at Honey Island, near Kountze. Subsequent field checks and aerial surveys in the vicinity from which the logs were salvaged failed to locate further beetle activity.

In the fall of 1956, Texas foresters were advised that the southern pine beetle might build up unnoticed in stands dying from drought and Ips beetle attack. It was urged that salvage cutting crews, especially in the Big Thicket area of southeast Texas, receive training in the recognition of southern pine beetle damage, and that they be encouraged to immediately report any initial activity of this pest.

In January, Southern Forest Experiment Station entomologists and Kirby Lumber Corporation foresters discovered by chance a localized infestation near the Honey Island skidway in tops left from a recent salvage cutting on a 10-acre burn. How many infested sawlog-size trees had been removed is not known, but thorough scouting revealed 8 infested pulpwood-size trees remaining on the area. These trees were immediately cut and sprayed. No beetle trees were found on other burned areas in the vicinity.

It was significant that the men who had marked the infested sawlog trees for cutting, felled them, skidded them out, transported them to the mill yard, and scaled them did not observe or recognize the characteristic signs of the insect. Consequently, during March several training sessions on the recognition and importance of the southern pine beetle were conducted at various points in east Texas. Approximately 120 cutting-crew foremen, scalers, timber markers, and foresters attended. They were urged to examine trees being marked, felled, or scaled and promptly report any evidence of the southern pine beetle.

In February a second fire occurred adjacent to the older burn. In late April, 9 more infested trees were located and treated, 7 of which were in the burned areas and 2 in adjacent unburned timber. Since then no more reports of the beetle have been received, although all foresters in east Texas have been alerted to look for it.

As soon as beetle activity becomes discernible from the air (as indicated by foliage discoloration), monthly reconnaissance flights will be

made alternately by company personnel and Southern Station entomologists over the hazard area. In addition, a cooperative aerial appraisal survey, shared by industry, the Texas Forest Service, and the Southern Forest Experiment Station, will be made over east Texas in June and, if advisable, will be repeated later during the summer.

SOUTHERN PINE BEETLE IN LOUISIANA

For the first time in possibly 40 years the southern pine beetle has been discovered killing timber in Louisiana. An active infestation was found and reported by a consulting forester early in March on land in East Baton Rouge Parish, 20 miles north of Baton Rouge. Other spot infestations involving scattered trees and small groups of trees have since been located in 3 other parishes.

The infested stand near Baton Rouge had been neglected for many years and a number of trees had died, presumably as a result of overcrowding, drought, and Ips beetle attack. Many dead and inferior trees were removed in an improvement cutting last August. In early March, however, some residual trees were observed to be dying, and an examination showed that large populations of the southern pine beetle were present. All recognizably infested trees were immediately cut and sprayed with benzene hexachloride in fuel oil.

The State Forester of Louisiana promptly alerted all foresters in the State by personal correspondence and asked them to look for and report occurrences of the southern pine beetle. Periodic reports concerning new developments have since been circulated, and attempts have been made to inform small timber owners by radio, television, and news releases.

Shortly after the initial warnings, the International Paper Company submitted specimens of the southern pine beetle taken from a tree in Catahoula Parish, central Louisiana. Subsequent aerial reconnaissance and ground checks by the Louisiana Forestry Commission and company foresters have revealed a few additional scattered beetle trees in this parish and also in nearby La Salle Parish.

In late March, several groups of infested trees, 5 to 15 in a group, were found within a radius of 5 miles of the first outbreak. A few scattered trees and small infested spots were also discovered in East Feliciana Parish directly to the north and adjoining the Mississippi State line. All infested trees occurred on small ownerships in extremely dense stands that had suffered severe growth loss in recent years.

All of southeastern Louisiana, from the Mississippi River to the Mississippi State line, was intensively surveyed by air in late April. Planes were provided by the Louisiana Forestry Commission and observations were made by State forestry personnel accompanied by Southern Forest Experiment Station entomologists. Approximately 100 small groups of dead trees were located, with a definite concentration in East Baton Rouge and East Feliciana Parishes. Ground checking of about 10 of these spots to date, however, has shown the predominant insects to be Ips beetles, with occasional southern pine beetles associated with them.

The general impression at the moment is that during recent years the southern pine beetle may have been present in small numbers without being observed. If so, the current infestations may not be much above normal. Realizing the unpredictable nature of the insect, however, and its rapid reproductive capacity, the State Forestry Commission, with the assistance of the Southern Forest Experiment Station, plans to continue aerial surveys throughout the State in May, and to refly East Feliciana and East Baton Rouge Parishes intensively in June.

It is hoped that, with the efficiency and strong backing of the Forestry Commission and the concern of industry, a major outbreak can be prevented. The main problem may be in poorly managed and neglected stands of small ownerships. So far, however, owners of the lands involved have done everything possible to wipe out existing infestations.

IPS ENGRAVER BEETLES IN TEXAS

As mentioned in the January issue of the REPORTER, severe and continued drought throughout east Texas increased Ips bark beetle populations during the fall of 1956. Heavy losses occurred on industrial lands, and also on the Davy Crockett National Forest, where about 5-1/2 million board feet of infested timber was salvaged. The small beetle, Ips avulsus, which commonly invades the upper stem and crown, was the most aggressive insect present and was believed to be killing pines that might otherwise have lived. It was hoped that soaking winter rains and low temperatures would ease the situation. Unfortunately, until recently, precipitation remained far below normal and mild weather throughout most of the winter permitted the beetles to remain active.

Heaviest beetle concentrations are in or near stands cut during critical drought months. Large beetle populations now exist in tops left from winter and spring cutting. Private agencies and national forest personnel have been advised that insect trouble should be expected when cutting operations are conducted in stands weakened by drought. Because

mill quotas have to be met, cutting must be done on a year-round basis. To prevent Ips populations from increasing further and spreading to standing timber, therefore, utilization of green tops for pulpwood, and burning or spraying of infested slash, have been recommended. It is not known how quickly the drought-weakened trees will respond to the recent heavy rains that have caused floods and disaster over many parts of the State.

LOBLOLLY PINE SAWFLY

The loblolly pine sawfly (Neodiprion taedae linearis) caused slight to moderate defoliation of loblolly pine on local areas of 250 acres and less scattered throughout 5 counties in southeastern Arkansas. Trees of all sizes from saplings to sawtimber were attacked. Spring was early, and the eggs began to hatch in the latter part of February and continued through March. Larval development was retarded by the return of cool weather during April, however, and the larvae continued to feed until the latter part of the month.

TEXAS LEAF-CUTTING ANT

Reports from east Texas and central Louisiana indicate that leaf-cutting ants have been unusually active and destructive this year. Greatest damage is done to pine seedlings during the winter, when other green vegetation is scarce. There is a growing demand among foresters for development of improved control techniques.

WHITE GRUBS

Reports of unusually heavy flights of May beetles (Phyllophaga spp.) were received from Texas and other parts of the South in late March and April. The larvae of these beetles, known as white grubs, feed on the roots of pine seedlings, as well as those of other plants. Damage to seedlings in nurseries and newly established plantations may be expected during the coming summer.

CRICKETS DESTROYING PINE SEEDLINGS

The Southern Forest Experiment Station's research center at Alexandria, Louisiana, has reported extreme losses of newly germinated slash pine seedlings in a test of fall seeding on open, cutover land. A short-tailed cricket, Anurogryllus muticus (DeG.), has been identified as the cause of the trouble.

The cricket lives in a burrow about 12-18 inches deep which it excavates in the soil. Near the top of the burrow is a horizontal section about an inch or two long and about an inch below the surface; here the cricket stores pieces of vegetation for use as food. On the surface is a small mound of soil approximately 3 inches in diameter and 1/2 inch high.

During the latter half of January, numerous mounds were present on the seeded area and pine seedlings or fragments could be found in the storage chambers. Seedling losses ranged from 20 to 95 percent, with losses much greater on disked strips than on grass roughs. Seedlings were rarely found in the chambers after the new growth of grass and other plants appeared. Instead, the chambers were packed with pieces of grass and broad-leaved herbs.

The crickets also damaged longleaf pine that had been direct-seeded near Oakdale, Louisiana. The area was heavily dotted with the characteristic cricket mounds, and fragments of longleaf seedlings were found in the burrows.

This cricket has been recorded from various points along the Atlantic Coast from New Jersey south and southwest to Florida, Louisiana, and Texas. Attempts are being made to find a suitable poison bait.

FOREST TREE DISEASES

Pine needle rust (Coleosporium sp.) has again become conspicuous in central Mississippi and Alabama. In March and April the yellow blisters that contain the rust spores formed on needles of pines. Heavy infections reduce growth rate but do not kill trees. Outbreaks, however, are being watched for possible damaging effects. No feasible control is known for use under forest conditions.

Hypoderma lethale is causing heavy leaf cast, particularly on loblolly pine, over wide areas in the South this spring. Studies are in progress to determine if other fungi may also be involved and what effect defoliation has on tree growth. Control methods have not yet been devised.

TRAINING

During the spring, training sessions on the identification and control of forest insects were provided foresters and woods workers in various parts of Texas, Louisiana, and Arkansas. Similar programs are planned for Oklahoma in May and Mississippi in early July.

SOUTHERN FOREST INSECT WORK CONFERENCE

The Second Annual Southern Forest Insect Work Conference will be held on September 4 and 5 at the Hotel Markham in Gulfport, Mississippi. Forest entomologists and others interested in forest insect problems in the South and Southeast will meet informally to discuss forest insect surveys, control projects and methods, research in progress or needed, education and extension work. Please mark the dates on your calendar and plan to attend. The conference promises to become an even greater success than the first one.

NEW PUBLICATION

Forest Pest Leaflet 12, "Black Turpentine Beetle," by R. H. Smith and R. E. Lee, has been published by the U. S. Department of Agriculture, Forest Service. Copies are available at the Southern Forest Experiment Station.

